



Health and Safety Baseline Risk Assessment

12 November 2021

Transnet National Ports Authority

Health and Safety Baseline Risk Assessment for the

Sturrock Dry Dock Infrastructure upgrade in the Port of Cape

Town -

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1. Risk Assessment Title	Sturrock Dry Dock Infrastructure upgrade in the Port of Cape Town
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2. Risk Assessment Team				
	Name	Designation	Contact Number	E-mail
Facilitator	Derrick Steyn	Safety Practitioner	0744447278	Derrick.steyn@transnet.net
Team Member 1	Bert Laubscher	Construction manager	083 852 0711	Bert.Laubscher@transnet.net
Team Member 2	Duke Stuurman	Project Manager	073 089 6426	Duke.Stuurman@transnet.net
Team Member 3	Katleho Lapati	Electrical Engineer	0662915826	Katleho.Lepati@transnet.net
Team Member 4	Abram Motshegare	Pr. CHSA	083 452 9220	Abram.Motshegare@transnet.net
Team Member 5				
Team Member 6				

3. Activities Covered
<p>This baseline risk assessment focuses on the high-level Health and Safety hazards and risks anticipated during construction taking into consideration construction methods :</p> <ul style="list-style-type: none"> ➤ Site Establishment ➤ Lifting and loading/unloading operations ➤ Staking and storage of redundant and or new material ➤ Removal of old pipes and infrastructure. ➤ Installation of new pipes and infrastructure. ➤ Removal of old perimeter fence and installing new clear vu fencing. ➤ Earth works in preparation for paving work to be done. ➤ Removal of old lighting infrastructure and replacing it with new lighting infrastructure. ➤ Concrete works ➤ Movement around and in the service tunnels

Geographical location: The Site is located in the Port of Cape Town, 8001. Google Earth location 33°54'52.1"S 18°25'46.8"E

4. Scope of Risk Assessment

The risks identified are those that will have a direct effect on the contractors during construction but also those that could have a detrimental effect on the project directly or indirectly from a time delay and cost point of view.

5. Hazards, Associated Risks, and Ratings

Task Steps (or Area) / Short risk name	Hazards	Associated risk event	Controls to manage the risk	Risk rating with controls		
				L	C	R
5.1 Hazard Identification and Risk Assessment						
Site establishment Clear area of any debris that might be in the way. (manual labour) Electrical Installations Fencing	Heavy equipment and or materials	Injuries to personnel and damage to equipment. Ergonomics	Site specific Health and safety plan for the project must be implemented. Provide detailed method statement for the activity Conduct Task based risk assessment Communication of all relevant controls with all stakeholders. Develop Written Safe Work Procedures for high risk activities Use proper Personal Protective Equipment Correct tools for the job and correct use of the tools competency/training and experience.	Possible	Moderate	High
	Tripping hazards (Uneven surfaces, debris and materials lying around)	Injuries to personnel and damage to equipment.		Possible	Minor	Medium
	Stakeholder engagement (operations carried out by TNPA operations and/or clients)	Injuries to personnel and damage to equipment.		Possible	Minor	Medium
	Unknown chemicals or materials present on site.	Injuries to personnel and damage to equipment. Health related risks Environmental impacts		Unlikely	Moderate	Medium
	Improper loading and off-loading practices.	Injuries to personnel and damage to equipment.		Likely	Moderate	High
	Pinch points - wire cutters, pliers etc.	First Aid Injury		Possible	Minor	Medium

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Sharp edges/wires	First Aid Injury	Gloves mandatory when working with wires.	Possible	Minor	Medium
Falling from ladders	Lost Time Injury	All electrical equipment to be inspected by a competent person monthly and also daily in pre-use inspections.	Rare	Moderate	Low
Incompetent persons doing electrical installations	Fatality Injury relating in permanent Disabilities Loss and or damage to equipment.	Verified competency training for any person operating electrically driven tools and equipment with proof of competency testing against the relevant unit standard.	Unlikely	Major	Medium
Contact with live electrical conductors	Fatality Injury relating in permanent disabilities	Conduct Planned Task observation on employees.	Possible	Critical	High
Potential for fire exists during commissioning of incorrectly constructed installations	Lost Time Injury	Task specific risk assessment to be in place and communicated.	Possible	Moderate	Medium
Commissioning of electrical installations outdoor during rain may cause injury	Lost Time Injury	All tools to be inspected and checked before use, including use of correct cutting disk and backing plates.	Unlikely	Moderate	Medium
Substandard Electrical Tools (e.g. Portable Electrical Grinders, Drills) being used	Lost Time Injury	Grinders may only be used on solid surface, no working from ladders allowed.	Possible	Minor	Medium
Unauthorized Access to electrical conductors	Fatality Injury relating in permanent disabilities	All electrically driven tools must be double insulated and must have a dead man switch fitted, it must not be possible to lock the equipment in the on position.	Unlikely	Major	Medium
Failure to adhere to Isolation and Lockout procedures	Fatality Injury relating in permanent disabilities	Identify activities where isolation and lockout will be required. Communicate these requirements to all project employees. Include isolation and lockout in permit conditions for activities	Unlikely	Major	Medium

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			where the potential of contact with conductors exist			
Loading and Off-loading (Lifting Operations (Off-loading of containers with crane trucks and manual handling of heavy equipment))	Defective lifting equipment, machinery (Lifting tackle, HIAB crane, Lifting hooks etc.)	Load drop, failing of equipment. Fatal injuries, damage to or loss of equipment and materials.	Load tests done and valid for all lifting machinery and or lifting equipment. Inspection by competent inspector prior to site mobilization. Pre-start inspections by Crane Operators. Mobile Cranes will be inspected and tested annually as per the requirements of Driven Machinery regulations. Verification and validity of Operator competencies. Inspections must be recorded and available at the crane for verification Purposes.	Unlikely	Moderate	Medium
	Incompetent operator and or driver.	Collisions, Load drop, over toppling of load. Fatal injuries, damage to or loss of equipment and materials.	Ensure Crane operator and rigger competency - certificate available. Conduct Planned Task observation on employees. Lifting study done for any lift in excess of 5 t. Ground stability and placement of outriggers considered. Outriggers used with designed base plates at all times. All employees removed from the slew radius and drop zone during	Unlikely	Moderate	Medium

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		the lift - guide ropes fitted and used.			
Incorrect use of Lifting tackle	Load drop, failing of equipment. Fatal injuries, damage to or loss of equipment and materials.	Lifting tackle will only be used by personnel trained and competent in the use of such lifting tackle. Safe Working Load of the lifting tackle will not be exceeded. Lifting tackle will only be used as per the intended design of such lifting tackle	Unlikely	Moderate	Medium
Unsupervised lifts	Collapse overturning of loads Fatal injuries, damage to or loss of equipment and materials.	No lifting operations may be done without the competent supervisor appointed for the site.	Unlikely	Moderate	Medium
Unstable ground/ working surface.	Overturning or collapse of loads Fatal injuries, damage to or loss of equipment and materials.	Lifting assessment must be done for all lifts to ensure the integrity of the working surface is adequate for the lift to take place. Out riggers must not be placed on any drain/manhole covers or any access or egress entrances to the pump station/ valve chambers below the surface.	Unlikely	Moderate	Medium
Uncontrolled pedestrians or site traffic.	Collisions with plant or pedestrians (people/ employees moving below suspended load) Fatal injuries, damage to or loss of equipment and materials.	Drop zone, slew radius must be controlled by a competent rigger. Appropriate overhead/suspended load signage must be implemented before and during each lift.	Unlikely	Moderate	Medium
Existing overhead services	Electrocution, explosion and or Fire. Fatal injuries, damage to or loss of equipment and materials	Overhead services considered. Mobile Cranes will not be used near Live Electrical Conductors	Unlikely	Moderate	Medium

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			<p>where the crane have a potential of coming closer than 10 m to the overhead conductor. (The voltage and guidance from an electrical engineer must be utilise prior to the lift operation)</p> <p>Lifting, rigging plan in place with task specific risk assessments. Only competent trained personnel used, verification and proof available on site.</p> <p>Equipment service and relevant inspections in date.</p>			
	Use of Mobile and or HIAB Cranes in high wind conditions.	<p>Fatality</p> <p>Injury relating in permanent Disabilities.</p> <p>Damage to equipment and or materials.</p>	<p>Mobile and or HIAB Cranes will not be used in wind conditions exceeding 35K/hr.</p> <p>Mobile and or HIAB cranes operations may be suspended during low wind conditions dependant on type of load and nature of wind radius and drop zone during the lift - guide ropes fitted and used.</p> <p>Calibrated wind meter must be used to ensure the accuracy of the wind and wind gusts.</p>	Unlikely	Moderate	Medium
Stacking, Storing and Stockpiling of material and equipment.	Improper stacking and storing (lack of competency, adequate space for stacking and storage, uncontrolled areas)	<p>Staked articles will fall over.</p> <p>Fatal injuries</p> <p>Damage and or loss to equipment.</p>	Conduct Task based Risk assessment for stacking and storage.	Unlikely	Moderate	Medium

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			<p>Appoint a Competent person for to supervise stacking and storage on site.</p> <p>Stakeholder engagement to acquire designated stacking and storage facilities/area prior to any deliveries, removal or hording of any materials or equipment.</p> <p>The area must be barricaded, sign posted with the appointed/responsible persons contact details.</p> <p>Formal weekly inspections must be done on stacked materials and or after inclement weather.</p>			
	<p>Improper stacking and storing of hazardous and or flammable materials/liquids (lack of competency, adequate space for stacking and storage, uncontrolled areas)</p>	<p>Fires, explosion and environmental impacts.</p> <p>Fatal injuries, damage and or loss to equipment.</p>	<p>Conduct Task based Risk assessment for storage of hazardous and or flammable materials/liquids.</p> <p>Appoint a Competent person for to supervise stacking and storage on site.</p> <p>Ensure that MSDS for all hazardous and or flammable materials/liquids are available.</p> <p>Stakeholder engagement to acquire designated storage facilities/area that is ventilated, bunded to contain 10% more of the stored quantity. Ensure that no</p>	Unlikely	Major	Medium

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			interaction of combustible materials can occur. Appropriate firefighting measures must be available at all times. The area must be barricaded, sign posted with the appointed/responsible persons contact details.			
	Strong winds and or gusts.	Staked articles will fall over. Fatal injuries, damage and or loss to equipment.	Conduct Task based Risk assessment for stacking and storage. Appoint a Competent person for to supervise stacking and storage on site. Preventative measures must be taken to ensure that stacks and integrity of stacked materials are not compromised by strong winds. Inspection must be done and recorded after inclement weather conditions.	Possible	Critical	High
Carrying of material	Possible Contact with Fellow employees	Minor injuries	Employees to take caution when walking/carrying material Employees to keep material as close to themselves or structure as possible to avoid possible contact with persons Ensure your vision is not obstructed.	Likely	Minor	Medium

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			Watch your blind spots and get assistance when carrying heavy and large objects Safe access with adequate control measures required when loading material via pump room			
Connecting/disconnecting and or energising or de-energising existing services (Water, electrical and or sewage)	Electricity(Live wires, exposed conductor) Incompetent persons doing electrical installations	Electrocution, fires. Fatality and or serious injuries.	Ensure Electrical work is done when electricity supply is off. Lock and tag out procedure. Competent person must conduct the work. Conduct Planned Task observation on employees. Correct tools for the job. Use Personal protective equipment.	Unlikely	Major	Medium
	Sewage Spills and or leaks (Environmental impact) Health and safety hazard to humans.	Ill health conditions and infections. Environmental impact.	Competent person must conduct the work. Provide correct tools and equipment. Ensure spill kit is available if spill occurs.	Possible	Minor	Medium
	Pinch and nip points.	Medical treatment case.	Conduct DSTI. Use correct tools for the job. Use Personal protective Equipment.	Unlikely	Minor	Low
	Over exertion and or awkward work positions.	Injuries and or ill health conditions.	Provide Ergonomic Risk Assessment. Provide correct tools, materials and or equipment to conduct the activity safely.	Unlikely	Minor	Low

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Service tunnel access and egress. (confined space entry)	Fall hazard (access manhole)	Fatality Injury relating in permanent disabilities	Appoint an competent fall protection planner for the project Impellent a site specific Fall protection plan. Provide training on the fall protection plan Provide fall protection, arrest and recovery equipment. Provide adequate personal protective equipment	Likely	Critical	Extreme
	Poor visibility (Access manhole and service tunnel)	Fatality Injury relating in permanent disabilities	Provide sufficient lighting for all areas the present poor visibility. Measure the lumens to ensure constant efficient lighting is in place. Backup power supply for the event of power failure.	Almost certain	Critical	Extreme
	Poor ventilation (service tunnels)	Fatality Injury relating in permanent Disabilities Respiratory Complication due to Lack of Ventilation	The Principal Contractor to prepare a confined space procedure in line with General Safety Regulation (5) OHS Act including Task Specific Risk Assessments, Method Statements and Emergency Procedures. Ensure that all work areas are adequately demarcated Relevant Signage Adequate emergency/rescue procedures required Safe Access Required at all times.	Almost certain	Critical	Extreme

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			Adequate Ventilation and supervision required at all times All hazardous substances to be assessed and ensure that MSDS are provided, all employees to be informed and First Aider has copies. Permit to enter required. Constant Oxygen Monitoring. Entry and Exit Register to be signed Area to be declared Gas free			
	Unknown Hazardous gasses present in the services tunnel	Fatality Injury relating in permanent disabilities	Chemical sampling and identification of chemicals, sludge, fumes and vapours that might be present. Adequate Personal Protective Equipment must be worn.	Almost certain	Critical	Extreme
	Poor access and egress management (open manhole and or blocked manhole)	Fatality Injury relating in permanent disabilities	Access and agrees must be managed by a person at all times. Signs of open manholes must be in place. Two way communication must be available and used. Barricade area when people are using the service manhole entrance.	Almost certain	Critical	Extreme
Construction vehicle and	Defective plant, machinery and or equipment	Fatality Injury relating in permanent disabilities	All construction vehicles must be in a good working condition and	Possible	Critical	High

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mobile plant operations on site			safe for the user and pedestrians or employees. Defects and or defective Construction vehicle and mobile plant must be removed and repaired before use.			
	Incompetent operators	Fatality Injury relating in permanent disabilities	Medically fit and Competent operators must be appointed in writing to operate the.	Possible	Critical	High
	Moving vehicles and mechanisms of Construction vehicle and mobile plant.	Fatality Injury relating in permanent disabilities	Construction vehicle and mobile plant must have reverse buzzer installed and working. Strobe lights in good working order. Mirrors to check surroundings. Flag men to guide Construction vehicle and mobile plant. Employees must use high visibility vests. Safe designated cell phone usage areas. Walkways for pedestrians.	Possible	Critical	High
Excavations with Plant and Manually	Unknown electrical cables	Possible Electrocution Damage to Existing services	Only Competent Persons to conduct Activities. Task Specific Risk Assessments to be provided. All operators to comply with CR 13 and CR 23. Way leaves or drawings to be obtained from the Client. Where	Possible	Critical	High

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			<p>way-leaves are not available adequate control measures must be implemented e.g. using a Cable Detector to determine the presence of possible services especially electrical cables. All work to be conducted under Supervision Way leaves or drawings to be obtained from the Client. Where way-leaves are not available adequate control measures must be implemented e.g. using a Cable Detector to determine the presence of possible services especially electrical cables. Only competent persons to excavate. Compliance with Construction Regulations 13. All work to be conducted under supervision</p>			
	Open excavations – fall hazard	Serious injury	<p>Task Specific Fall Protection Plan by appointed competent person. Physical barrier of at least 1-meter-high must be provided with relevant signage displayed</p>	Possible	Major	High
Hazardous chemical	Contact with Spray paint and or painting (HCS)	Inhalation of fumes Contact dermatitis	Safe work procedure for handling HCS.	Possible	Major	High

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Substances (HCS) – Painting, sealants, adhesives, fossil fuels, lubricants and oils.		Contact with eyes Medical treatment case	Training employees on the Material safety data sheet Procedure for Hazardous waste management. Provide and implement the Use of Personal Protective Equipment.			
	Flammable substances	Lost time injuries Fires and or explosions Serious occupational health incident	Safe work procedure for handling HCS. Training employees on the Material safety data sheet Procedure for Hazardous waste management. Provide and implement the Use of Personal Protective Equipment.	Possible	Major	High
	Cement and grout (HCS)	Occupational health incident	Safe work procedure for handling HCS. Training employees on the Material safety data sheet Procedure for Hazardous waste management. Provide and implement the Use of Personal Protective Equipment.	Possible	Minor	Medium
Access Scaffolding (erecting, use, modifications and dismantling)	Incompetent Scaffold Erectors and Inspectors	Fatality Injury relating in permanent disabilities	Only Appointed and competent Scaffold Erectors to build scaffolding. Ensure Scaffold Supervisors, Erectors and Inspectors are competent - competency certificate available	Unlikely	Critical	High

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Substandard Scaffolding Structures	Multiple fatalities	Scaffolding only erected and dismantled by competent personnel. Scaffolding erected under supervision of trained and competent scaffold supervisor. Scaffolding to comply with SANS 085 Standard.	Unlikely	Critical	High
Objects, Tools and Equipment falling from heights	Lost Time Injury	All tools and equipment to be fitted with lanyards when working at heights. Area below overhead work barricaded. Staggered personnel during passing of material to higher levels. Work supervised by competent and appointed supervisor. All tools being used in elevated positions to be fitted with Lanyards	Possible	Moderate	High
Personnel falling from heights	Fatality Injury relating in permanent disabilities	Personnel performing elevated work trained in use of fall protection systems. Fall Protection Plan implemented. Attachment points must be clearly identified on the construction site, 100% attached at all time when working at heights. Medical screening to include check for epilepsy or any other condition	Possible	Critical	High

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			that could place employee at risk. Employer to define and declare job descriptions before medicals - part of the employee dossiers. Planned Task Observations conducted on personnel working at heights. Employees to wear/use Safety Harnesses.			
Use of Portable Electrical Hand Tools	Unsafe and defective equipment (no machine guards, exposed conductor, broken switches or plugs)	Electrocution, electrical shock, fire and or explosion. Fatal injuries and damage to equipment	Provide safe and sound PET (Portable Electrical Tools) to employees. Competent person must inspect all tools monthly. Conduct pre inspection before use and keep record of the inspection. Report deviations and lock out deviated tools. Follow Safe Work Procedure for all PET. Do not work in hazardous environment with regards to Electrical equipment.	Unlikely	Moderate	Medium
	Untrained employees using portable electrical tools.	Electrocution, electrical shock, fire and or explosion. Fatal injuries and damage to equipment	Provide competent employees to operate portable electrical equipment. Conduct Planned Task observation on employees.	Unlikely	Moderate	Medium,
	Working in hazardous areas.	Fire, explosion. Fatal injuries and damage to equipment.	Task risk assessment must be done prior to use of electrical equipment.	Rare	Major	Low

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		SOP for PET operation and hazardous areas.			
Exposed Moving parts (nip and pinch points)	Loose clothing, fingers and or PPE can get caught by moving parts. Fatal injuries, Amputation and or serious injuries.	Daily safety task instruction must be done prior to all works. Ensure that no loose clothing, jewellery and or PPE is used while operating PET.	Unlikely	Major	Medium
Hot parts during and after use.	Burns.	Provide SWP for PET. Communicate SWP with employees operating PET. Conduct Planned Task observation on employees.	Possible	Minor	Medium
Debris, shavings coming from material being worked on.	Debris can get lodged in one's eye. Fires from hot shavings and or grinding sparks. Serious injuries, Damage to materials and or equipment.	Provide SWP for PET. Communicate SWP with employees operating PET. Conduct Planned Task observation on employees. Use Apron, safety spectacles, gloves and safety shoes when working with PET.	Possible	Major	High
Noise	Noise induced hearing loss, affecting 3 rd party	Identify Noise zones. Implement and provide the use of hearing protection.	Possible	Minor	Medium
Vibration. (Hand arm)	Irreversible neurological disease and or medical treatment cases.	Conduct and ergonomic Risk assessment for the activity. Provide SWP for PET. Communicate SWP with employees operating PET. Conduct Planned Task observation on employees.	Possible	Moderate	High

INHERIT HAZARDS AND RISK WITHIN THE WORKING ENVIRONMENT.						
Dry dock facility and its operations (flooded and empty dock conditions) Quayside conditions.	Water environment (water hazard)	Fatality – employees might fall into the dry dock when it is flooded.	<p>Ensure that the changes within the work environment is assessed and documented for each day (flooded or emptied dry dock)</p> <p>Provide means to prevent employees falling into the water.</p> <p>Provide means to rescue employees that might fall into the water.</p> <p>Ensure that all employees that have the risk to fall into the water are issued with life jackets that are inspected and suitable for the person using it.</p>	Possible	Major	High
	Fall hazard (heights)	Fatality – employees might fall into the dry dock when the dry dock is empty, no water present)	<p>Ensure that the changes within the work environment is assessed and documented for each day (flooded or emptied dry dock)</p> <p>Personnel performing elevated work trained in use of fall protection systems.</p> <p>Fall Protection Plan implemented.</p> <p>Attachment points must be clearly identified on the construction site, 100% attached at all time when working at heights. Medical screening to include check for</p>	Possible	Major	High

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			epilepsy or any other condition that could place employee at risk. Employer to define and declare job descriptions before medicals - part of the employee dossiers. Planned Task Observations conducted on personnel working at heights. Employees to wear/use Safety Harnesses.			
Services in the area.	Unknown services in the vicinity (water and or electrical cables in the wall)	Fatality Damage to property.	Stakeholder engagement. Survey area for services Excavate cautiously where services are known.	Unlikely	Major	Medium
People movement within the work areas.	Trips and falls	Fatality to minor injuries can occur.	The contractor must attend the TNPA induction training for the port. Familiarise themselves with the area of operation and the working environment. Provide site specific induction to all their employees and or visitors Provide Safety boots (ankle support) to all employees that are in good working order.	Likely	Moderate	High
	Heavy vehicle and overhead work/movement	Fatality to minor injuries can occur.	The contractor must attend the TNPA induction training for the port. Familiarise themselves with the area of operation and the working environment. Provide site specific induction to all their employees and or visitors.	Likely	Moderate	High

			Ensure that high visibility clothing is used and that continues awareness training is conducted. Limit cell phone usage on site and only at designated areas.			
COVID -19 HAZARDS AND RISK WITHIN THE WORKING ENVIRONMENT						
Work Place interactions	Health hazard-COVID-19	Contracting COVID-19 person to person transmission	<p>Do not share tools / equipment, crockery/cutlery/towels/bedding or anything that can facilitate the spread of the virus.</p> <p>Masks have not been proven to definitively protect against every contagion. However, masks prevent a person from unconsciously touching their eyes, nose and mouth, so they may offer a measure of protection. Masks are for single use only, not to be worn two days in a row.</p> <p>Avoid touching your eyes, nose, and mouth and shaking hands with others.</p> <p>Cough or sneeze into a tissue and dispose thereof safely into a bin provided.</p> <p>Wash your hands frequently with soap and running water for no less than 20 seconds. If you have none available use a hand sanitizer with at least 70% alcohol.</p> <p>Apply social distancing principles, stay at least 1.5m away from people/employees were possible.</p> <p>Avoid crowds and gatherings.</p>	Possible	Major	High

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			Clean frequently touched objects/surfaces. The following cleaning products can be used: Hypochlorite (e.g. Household Bleach) Alcohol (70%) Hydrogen Peroxide Phenolic Compounds Quaternary Ammonium Compounds			
	Occupational Health (Ill health and COVID 19 infection)	Older workers 60+ workers with underlying auto-immune or chronic diseases (note that workers may be symptom free but infected with Covid-19) Not declaring chronic illness as per Transnet Guidelines for Employees with Chronic Illness	Testing using Thermometers prior to going to site Informing line Manager if there are any symptoms Screening and valid certificate of fitness on return to work Daily completion of screening /return to work questionnaire. Symptomatic employees to be isolated and sent for testing. Declaration of Chronic illness as per Transnet Guidelines for Employees with Chronic illness	Possible	Critical	High
	Contaminated facilities (e.g. door handles, counters, etc.)	Contracting COVID-19 person to person transmission	Wearing of masks at all times to prevent touching of eyes, nose and mouth Wearing of gloves at all times Utilization of sanitizers with at 70% alcohol Washing of hands frequently with soap and water for at least 20 min Cleaning and Disinfecting the vehicle prior to boarding	Likely	Major	High

	Using public sanitary facilities	Contracting COVID-19 person to person transmission	Wearing of masks at all times to prevent touching of eyes, nose and mouth Wearing of gloves at all times Utilization of sanitizers with at 70% alcohol Washing of hands frequently with soap and water for at least 20 min	Likely	Major	High
Travelling to site by Road	Be in contact with someone who is visibly coughing, sneezing, sick person	Occupational Health (Ill health and COVID 19 infection)	Wearing of masks at all times to prevent touching of eyes, nose and mouth Utilisation of sanitizers with at 70% alcohol.	Possible	Major	High
	No compliance to government gazetted regulation on transport (i.e. maximum allowable capacity exceeded)	Occupational Health (Ill health and COVID 19 infection)	Keeping a social distance of at least 1.5m Avoid shaking hand, hugs and kissing Washing of hands frequently with soap and water for 20 min Cough, sneeze in a tissue and throw away to a provided bin Adherence to vehicle 70% or less capacity Vehicles sanitised between trips; hand sanitiser provided for Passengers.	Possible	Major	High
Utilisation of Public Transport	Maximum allowed capacity exceeded; No facilities for sanitising vehicles and passengers; No additional protective measures available, e.g. face masks; Unlicensed drivers and operators	Spreading of virus and contact with virus causing infection	Selection and provision of transport services compliant with gazette requirements Policy and procedures and rules for travel Where possible to limit the use of public transport, or to arrange selective methods of transport Ongoing toolbox talks	Possible	Major	High

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			Supply of cloth masks to be worn when travelling or moving on and off site Vehicles sanitised between trips Provision Hand sanitisers			
Sleeping at the hotel, bed and breakfast	Be in contact with someone who is visibly coughing, sneezing, sick person Contaminated facilities and surfaces (e.g. door handles, counters, etc.) Using sanitary facilities	Spreading of virus and contact with virus causing infection	Do not share crockery, cutlery, towels, bedding, or anything that can facilitate the spread of the virus. Utilisation of sanitizers with at 70% alcohol Keeping a social distance of at least 2m Washing of hands frequently with soap and water Throwing away used tissues	Possible	Major	High
Site preparation	Not trained on COVID 19 Post lockdown Construction Health and Safety Guidelines COVID 19 Compliance Officer not appointed	Spreading of virus and contact with virus causing infection Ill health and COVID 19 infection	Daily COVID 19 topic Tool box talk Induction/Awareness Inspection to assess condition Revised policies Revised Method Statements Revised Risk Assessments Decontaminate the site, in affected areas; Ensure the availability of hand washing facilities and sanitizers, throughout the site, and at entrances. Appointment of the COVID 19 Compliance Officer	Possible	Major	High
	Contaminated facilities and surfaces (e.g. door handles, counters, etc.)	Spreading of virus and contact with virus causing infection Ill health and COVID 19 infection	Inspection to assess condition Utilisation of sanitizers with at 70% alcohol Washing of hands frequently with soap and water for at least 20 min	Possible	Major	High

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			Ensuring that the room is clean and Disinfected prior to use			
Waste Management	Not discarding waste properly and or regularly	Spreading of virus and contact with virus causing infection Ill health and COVID 19 infection	Provide waste management plan that includes Bio hazardous waste (Regulations of Biological agents) Keep record of waste disposal. Provide separate waste containers with closable secure lids. Ensure that waste areas are clearly demarcated. Training and waste management awareness.	Unlikely	Major	Medium
Performance of construction activities on site	No access control	Ill health and COVID 19 infection	Monitoring of access and egress Body Temperature testing using Thermometer Alcohol testing using cleaned and disinfected disposable mouthpiece straws	Unlikely	Major	Medium
	Visitors visiting site unannounced or non-essential visitors	Ill health and COVID 19 infection	Non-essential visitors are not allowed Visitors to be informed in advanced of site screening tests Required and adequate PPE to be worn prior to entering the site Visitors to bring their own PPE Visitors to be accompanied by the Site Supervisor	Unlikely	Major	Medium
	Sharing of tools and equipment	Ill health and COVID 19 infection	Planning of work to minimise contact Employees to be issued with own tools and/ or equipment, no sharing is allowed	Possible	Major	High

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		Wearing of masks at all times to prevent touching of eyes, nose and mouth Wearing of gloves at all times Utilisation of sanitizers with at 70% alcohol Washing of hands frequently with soap and water for at least 20 min			
Conducting meetings traditionally	Ill health and COVID 19 infection	Wearing of masks at all times to prevent touching of eyes, nose and mouth Wearing of gloves at all times Utilisation of sanitizers with at 70% alcohol Washing of hands frequently with soap and water for at least 20 min Keeping a social distance of at least 1.5metres Avoid shaking hand, hugs and kissing Cleaning and disinfecting area prior to utilising Use of teleconferencing Holding meetings in an open area (if possible)	Likely	Major	High
Not adhering to social distancing protocol	Ill health and COVID 19 infection	Keeping a social distance of at least 1.5metres, where not possible , Demarcation and spacing of queueing areas; segregation of queueing areas and public outside site perimeters; Meeting/eating areas to be large, enough to maintain 2m distance at maximum occupancy Intense monitoring	Possible	Major	High

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	Absence of Signage (Unauthorized entry to site and work areas). Acts and behavior that compromises worker)	Compromising workers health (contamination) leading to infection with COVID 19	Installation of posters and signage with the site rules and protocols that need to be maintained at strategic points. Intense Supervision and adequate awareness training required. Disciplinary steps will be taken against transgressors.	Unlikely	Major	Medium
	Use, Maintenance and Disposing of Personal Protective Equipment (PPE)	Training not provided on using or wearing PPE; Non-maintenance of PPE; and Incorrect disposing off PPE Ill health and COVID 19 infection.	No employees are allowed to come to site without wearing PPE or wearing inadequate/inappropriate PPE Issuing of re-usable masks Cloth masks must be wash and ironed Adequate training must be provided in the correct use and disposal of cloth masks Masks to be worn for the entire duration on site Single use must be disposed properly Provision of sealable disposal containers/bags through appropriate waste removal company Where possible face shields should be used to protect mouth, nose and eyes. Regular cleaning of face shields required. No sharing of PPE is permitted. Adequate supervision COVID PPE does not replace conventional PPE	Unlikely	Major	Medium

6. Implement the Additional Risk Controls Identified		
If no Preventive Action was raised, indicate briefly what additional risk controls from Step 6 above were implemented, when and by whom.		
Risk control:	Date:	Implemented by:
Risk control:	Date:	Implemented by:
7. Monitor and Review the Risk Controls		
It is important to monitor risk controls and review risk assessments regularly. Review is required when there is a change in the process, relevant legal changes, and where a cause for concern has arisen. Reviews could be scheduled on an annual basis. If the risk assessment has substantially changed a new risk assessment is warranted.		
Review date:	Reviewed by:	Authorised by:
Review date:	Reviewed by:	Authorised by:
8. Documentation		
See Legal Register for all applicable legislations, regulations, codes of practices & guidelines.		

9. Annexure 1 – Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Critical
Almost Certain	Medium	Medium	High	Extreme	Extreme
Likely	Low	Medium	High	High	Extreme
Possible	Low	Medium	High	High	High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Low	Medium

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Assessed Risk Level	Description of Risk Level	Action Required
Low	If an incident were to occur, there would be little likelihood that an injury would result	Undertake the activity with the existing controls in place
Medium	If an incident were to occur, there would be some chance that an injury requiring First Aid would result	Additional controls may be needed
High	If an incident were to occur, it will be likely that an injury requiring medical treatment would result	Controls will need to be in place before the activity is undertaken
Extreme	If an incident were to occur it, it would be likely that a permanent or death would result	Consider alternatives to doing the activity. Significant control measures will need to be implemented to ensure safety

Likelihood	Description of Likelihood		Consequence	Description of Consequence
1. Rare	Will only occur in exceptional circumstances		1. Insignificant	No treatment required
2. Unlikely	Not likely to occur within the foreseeable future, or within the project lifecycle		2. Minor	Minor injury requiring First Aid treatment (e.g. minor cuts, bruises, bumps)
3. Possible	May occur within the foreseeable future, or within the project lifecycle		3. Moderate	Injury requiring medical treatment or lost time
4. Likely	Likely to occur within the foreseeable future, or within the project lifecycle		4. Major	Serious injury (injuries) requiring specialist medical treatment or hospitalisation
5. Almost Certain	Almost certain to occur within the foreseeable future or within the project lifecycle		5. Critical	Loss of life, permanent disability or multiple serious injuries